

### Abstract

A piezoelectric actuator, for instance for actuating a mechanical component, is proposed in which the piezoelectric actuator is provided with a multilayer construction of piezoelectric layers (2) and can be acted upon by an electrical voltage in a piezoelectrically active region (A) via inner electrodes (3, 4) disposed between the layers. At least one inactive region (B, C) is present in the layer construction of the piezoelectric actuator (1), and this region (B, C) is formed without inner electrodes, of a material whose mechanical and thermal properties match the properties of the active region (A), including the combination and the interaction of the material of the piezoelectric layers (2) and of the inner electrodes (3, 4).

10 (Drawing)